

#### REMARKS/ARGUMENTS

Claims 2-12, 14-21, and 23-30 are pending in the present application. Claims 6, 7, 18, 19, 27, and 30 are amended. Claims 23, 27, and 30 are independent claims.

A clarification amendment has been made to independent claim 27 to recite "a sequential placement of the time slots occupied by said concatenated optical signal claims within at least one of said plurality first and second pluralities of N time slots does not conform to said synchronous optical network standard." It is respectfully submitted that this amendment is made for purposes of clarification, rather than for a reason relating to patentability.

#### Claim Objections

In the Office Action, claims 18 and 19 were objected to because they depend on cancelled claim 13. Applicants respectfully submit that claims 18 and 19 have been amended, such that they now depend on independent claim 27.

Claim 6 was objected to because it recites "an additional memory" (line 11), even though "memory" is not previously recited in claim 6, its base claim, or any of the intervening claims. Accordingly, claim 6 has been amended to replace each instance of "additional memory" with "memory." Furthermore,

Applicants submit that claim 7, which refers to the "additional memory" of claim 6, has been similarly amended. Applicants respectfully submit that these amendments do not materially change the scope of the claims. Nor are these amendments related to reasons of patentability. Instead, these amendments are merely clarifying amendments which were made to address formal matters raised by the Examiner.

Claims 27 and 30 were objected to because they include "(synchronous optical network)." Applicants respectfully submit that claims 27 and 30 have been amended to remove this feature. Applicants submit that these amendments do not change the scope of the claims. Also, it is respectfully submitted that these amendments merely address formal matters.

It is respectfully submitted that each of the Examiner's claim objections has been addressed. Thus, withdrawal of these objections is requested.

**Rejections 35 U.S.C. § 103**

Claims 2, 3, 5, 6, 8-12, 14-19, and 23-30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,416,772 to Helton et al. (hereinafter Helton) in view of U.S. Patent No. 6,118,795 to Fukunaga et al. (hereinafter Fukunaga). This rejection is respectfully traversed.

Independent claims 23, 27, and 30 each recite receiving or outputting concatenated optical signal frames conforming to a synchronous optical network standard, which occupy time slots whose sequential placement does not conform to the synchronous optical network standard. Applicants submit that this feature is neither taught nor suggested by Helton and Fukunaga, either taken alone or in combination with one another.

Applicants presented the above argument in the previous Amendment filed January 16, 2004. In page 11 of the outstanding Office Action, the Examiner stated the following:

[Fukunaga] fails to explicitly disclose [that] the time slots of the concatenated frames "does not conform to SONET standard[.]" However, it is obvious that the STS-3c/12c frame consists of three/twelve concatenated STS-1 frames and has three/twelve bigger number [sic] of time slots in the STS-1 frame. Therefore, the number of time slots in the STS-3c/12c frame "does not conform to SONET standard[,]" e.g. [,] the number of time slots in the STS-1 frame.

It is clear from this statement that the Examiner is operating under the mistaken assumption that the SONET standard does not cover synchronous transport signal (STS) levels above 1 (e.g., STS-3 and STS-12). Presumably, the Examiner believes that SONET only applies to STS-1 signals. Applicants respectfully submit the Examiner's assertion is wrong for the following reasons.

As discussed in the Background section of the specification the SONET standard covers the transmission frames according to a base rate of 51.84 Mbit/second, as well as other higher data rates. See Specification at page 1, paragraphs 2-3. As disclosed in this portion of the specification, frames associated with the base data rate are referred to as STS-1. Higher data rate frames under the SONET standard are formed at integer multiples of STS-1 frames, and are designated STS-N (N is 3, 12, etc.).

In certain broadband transmission protocols (such as ATM and ISDM), large payloads are transmitted, which do not fit within a single STS-1 frame. Thus, in order for these payloads to be transmitted using the SONET standard, a plurality of STS-1 frames must be concatenated together. These concatenated STS-1 frames are referred to as STS-Nc (N = 3, 12, etc.). See Spec. at page 2, paragraph 2. The SONET standard specifies the specific time slots in an STS-Nc frame, which the STS-1 frames must occupy. See Spec. at page 2, paragraph 3; and Fig. 2. Thus, the SONET standard specifies a sequential placement of time slots within STS-3c and STS-12c frames to be occupied by the concatenated STS-1 frames.

Fukunaga discloses a system for receiving and processing optical signals, which have the same composition of one of STS-1, STS-3c, and STS-12c. Based on pointer information in the

optical signal, Fukunaga's system determines which frame composition is being used. See, e.g., Fukunaga column 18, line 65 - column 19, line 43. When the signal is detected to be STS-3c or STS-12c, Fukunaga's system separates the signal into the component STS-1 frames (See column 2, lines 32-43). Fukunaga's system is able to separate the received signal into the STS-1 frames due to the fact that the sequential placement of the STS-1 frames within the time slots is specified by the SONET standard.

Accordingly, Fukunaga fails to disclose concatenated optical signal frames of a synchronous optical network standard, which occupy time slots according to a sequential placement that does not conform to the standard. Also, Helton does not teach or suggest such a feature. Therefore, Helton and Fukunaga fail to teach or suggest each and every claimed feature in independent claims 23, 27, and 30.


Conclusion

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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